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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,928	08/13/2004	Chih-Chin Chang	LHTP0006USA	4927

27765 7590 12/15/2004

(NAIPC) NORTH AMERICA INTERNATIONAL PATENT OFFICE
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER
TRINH, HOA B

ART UNIT	PAPER NUMBER
2814	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/710,928	CHANG ET AL.	
	Examiner	Art Unit	
	Vikki H Trinh	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 8 and 19 are objected to because of the following informalities: In claims 8 and 19, line 4 of each claim, the phrase "a diode chip anti in parallel" is a vague and incoherent phrase. Thus, in this Office Action the examiner addresses the phrase to simply mean "a diode chip". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al. (6,069,440) (hereinafter Shimizu).

As to claims 1, 8-9, 19, Shimizu discloses a lead type light emitting diode package comprising a light emitting diode/chip device 102 (fig. 1) disposed in the lead type light emitting diode package 101(fig. 1), and a molding material (col. 16, lines 48-50) covering the Light emitting diode device 102, a plurality of scatter (col. 16, lines 50-52) supported wavelength converters being included in the molding material ; wherein portions of light beams emitted from the Light emitting diode device incident to each of the scatter supported wavelength converters are scattered by each of the scatter supported wavelength converters (col. 6, lines 25-30), and portions of light beams emitted from diode device incident to each of the light emitting scatter supported wavelength

converters are absorbed to excite each of the scatter supported wavelength converters to emit Light in another wavelength (col. 13, lines 40-50).

As to claim 2, 13, 20, Shimizu also shows that the molding material 101 (fig. 1) comprises an organic molding compound, a ceramic material permeable to Light, a glass material permeable to light, an insulation fluid material permeable to Light, or a composite material comprising at least two materials selected from a group consisting of the above-mentioned materials (col. 16, lines 48-55).

As to claim 3, 14, Shimizu further teaches that each of the scatter supported converters comprises a physical composite chemical composite material, and each of the scatter wavelength converter material or a supported wavelength converters comprises at least one scatterer and at least one activator (col. 13, lines 40-62 and col. 16, lines 43-52).

As to claim 4, 15, Shimizu additional shows that the activator (phosphor, col. 10, lines 20-40) is a material represented by a general formula (A) (B) (C) :D (col. 3, lines 42-45), where 3+t+u 5+u+2v 12+2t+3u+3v 0<t<5, 0<u< 15, 0<v<9, A is at least one selected from Y, Ce, Tb, Gd, and Sc, Ga, TI, In, and B, C is B is at least one selected from Al, at least one selected from 0, S, and Se, D is at least one selected from Ce and Tb, and the scatterer comprises an oxide, a sulphuret, or a selenium compound of at least one metal element selected from the above general formula (col. 16, lines 47-52).

As to claims 5, 7, 16, 18, Shimizu further shows that the activator adheres to portions of a surface of the scatterer (col. 8, lines 45-52).

As to claim 6, 17, Shimizu also teaches that the scatterer is encapsulated by the activator (col. 8, lines 45-52, and col. 16, lines 45-55).

As to claim 10, Shimizu shows the package includes a first lead 105 (fig. 1) used as a positive electrode and a second lead 106 (fig. 1) used as a negative electrode.

As to claim 11, Shimizu shows that the first and second leads 105, 106 (fig. 1) comprise a cup 105a (fig. 1).

As to claim 12, Shimizu shows a package 200 (fig. 2) having a casing (204) with a recess (fig. 2), a light emitting diode/chip device 202 disposed in the recess; and a molding material 201 (fig. 2) filling the recess and covering the LED 202, a plurality of scatter supported wavelength converters being included in the molding material (col. 9, lines 1-5); wherein portions of light beams emitted from the Light emitting diode device incident to each of the scatter supported wavelength converters are scattered by each of the scatter supported wavelength converters (col. 6, lines 25-30), and portions of light beams emitted from diode device incident to each of the light emitting scatter supported wavelength converters are absorbed to excite each of the scatter supported wavelength converters to emit Light in another wavelength (col. 13, lines 40-50).

As to claim 21, Shimizu shows a positive electrode and a negative electrode (fig. 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vikki Trinh whose telephone number is (571) 272-1719. The Examiner can normally be reached from Monday-Friday, 9:00 AM - 5:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Wael Fahmy, can be reached at (571) 272-1705. The office fax number is 703-872-9306.

Any request for information regarding to the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Also, status information for published applications may be obtained from either Private PAIR or Public Pair. In addition, status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. If you have questions pertaining to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at http://www.uspto.gov/ebc/index.html or 1-866-217-9197 for information on this policy. Requests

to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

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